

High IP3

# Low Noise Amplifier

ZRL-700+

50Ω

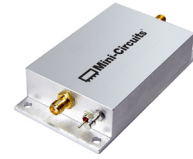
250 to 700 MHz

## Features

- High IP3, +46 dBm typ.
- Low Noise figure, 2.0 dB typ.
- Broadband flat gain response
- Internal voltage regulated
- Over-voltage and transient protected

## Applications

- High dynamic range applications
- Mobile radio service
- NMT 450 cellular service
- aeronautical communications
- UHF television



Case Style: FJ893

Connectors	Model	Price	Qty.
SMA	ZRL-700+	\$119.95 ea.	(1-9)

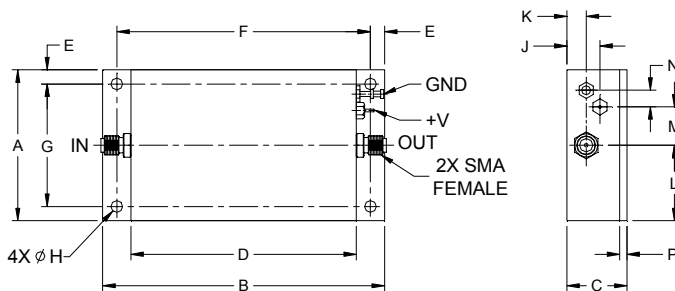
**+RoHS Compliant**  
 The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		250		700	MHz
Noise Figure	250 - 700 300 - 500	—	2.0 2.0	3.5 3.5	dB
Gain	250 - 700 300 - 500	27 27.5	30 31	—	dB
Gain Flatness	250 - 700 300 - 500	—	±0.5 ±0.3	±1.0 ±0.7	dB
Output Power at 1dB compression	250 - 700 300 - 500	23.5 23.5	24.8 24.8	—	dBm
Output Power at 3dB compression	250 - 700 300 - 500	—	25.2 25.3	—	dBm
Output third order intercept point <sup>1</sup>	250 - 700 300 - 500	—	+45 +46	—	dBm
Input VSWR	250 - 700 300 - 500	—	1.2 1.15	—	:1
Output VSWR	250 - 700 300 - 500	—	1.15 1.10	—	:1
Active Directivity	250 - 700 300 - 500	—	13 13.5	—	dB
DC Supply Voltage <sup>2</sup>		—	12	—	V
Supply Current		—	450	575	mA

1. 1 MHz tone spacing.  
 2. Unit is internally voltage regulated for 6.5 to 17VDC input voltage range.

## Outline Drawing



## Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 80°C case -40°C to 60° ambient
Storage Temperature	-55°C to 100°C
DC Voltage	+17V
Input RF Power (no damage)	+10 dBm

Permanent damage may occur if any of these limits are exceeded.

## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
2.00	3.75	0.80	3.00	0.19	3.374	1.624	0.156	0.44	0.26	1.00	0.51	0.22	0.10	grams
50.80	95.25	20.32	76.20	4.83	85.70	41.25	3.96	11.18	6.60	25.40	12.95	5.59	2.54	135

### Notes

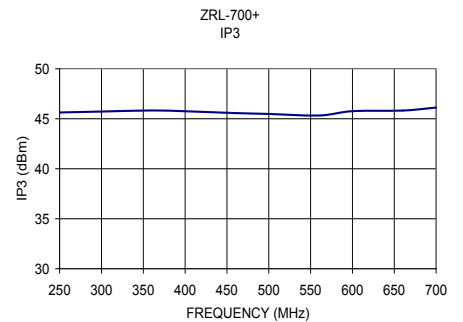
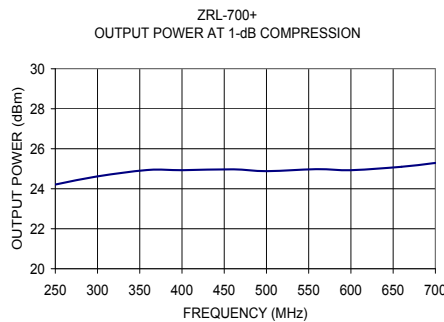
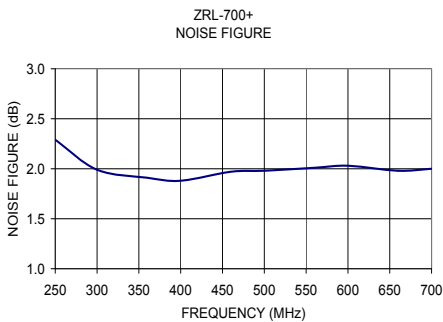
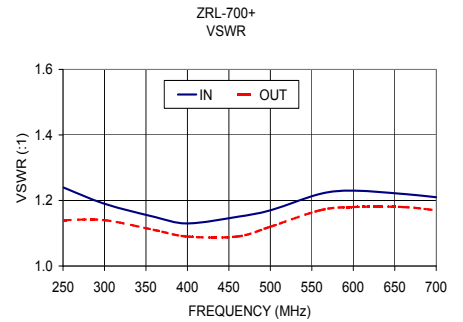
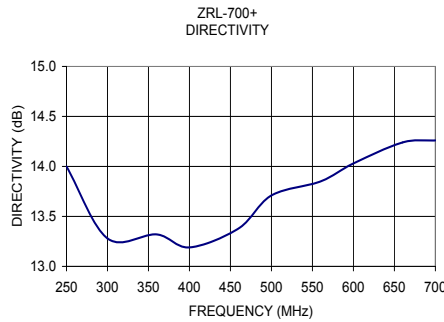
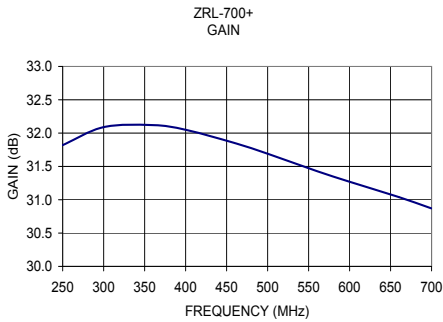
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 Page 1 of 2

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1dB COMPR. (dBm)	OUTPUT IP3 (dBm)
	12V		IN	OUT			
250.00	31.82	14.00	1.24	1.14	2.29	24.21	45.63
300.00	32.09	13.28	1.19	1.14	1.99	24.62	45.72
360.00	32.12	13.32	1.15	1.11	1.91	24.94	45.83
400.00	32.05	13.19	1.13	1.09	1.88	24.93	45.75
460.00	31.85	13.38	1.15	1.09	1.97	24.97	45.57
500.00	31.69	13.71	1.17	1.12	1.98	24.88	45.48
560.00	31.43	13.85	1.22	1.17	2.01	24.98	45.33
600.00	31.27	14.03	1.23	1.18	2.03	24.93	45.76
660.00	31.04	14.24	1.22	1.18	1.98	25.10	45.82
700.00	30.87	14.26	1.21	1.17	2.00	25.29	46.12



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